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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 11:57:26 ON 09 APR 2010

=> file caplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.22       0.22

FILE 'CAPLUS' ENTERED AT 11:58:08 ON 09 APR 2010
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FILE COVERS 1907 - 9 Apr 2010  VOL 152 ISS 16
FILE LAST UPDATED: 8 Apr 2010  (20100408/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Feb 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Feb 2010

CAplus now includes complete International Patent Classification (IPC)
reclassification data for the first quarter of 2010.

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This file contains CAS Registry Numbers for easy and accurate
substance identification.

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E1            1     US20070285003/PN
E2            1     US20070285004/PN
E3            1 --> US20070285005/PN
E4            1     US20070285006/PN
E5            1     US20070285007/PN
E6            1     US20070285008/PN
E7            1     US20070285009/PN
E8            1     US20070285010/PN
E9            1     US20070285011/PN
E10           1     US20070285012/PN
E11           1     US20070285014/PN
E12           1     US20070285015/PN

=> s e3
L1            1 US20070285005/PN

=> d all

L1   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2010 ACS on STN
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AN 2005:1154873 CAPLUS
DN 143:429826
ED Entered STN: 28 Oct 2005
TI Organic electroluminescent device and organic electroluminescent display
IN Itai, Yuichiro
PA Fujitsu Limited, Japan
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM H05B033-14
ICS H05B033-12; C09K011-06
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 22, 74
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005101911	A1	20051027	WO 2004-JP4662	20040331
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
TW 252051	B	20060321	TW 2004-93108675	20040330
JP 4438003	B2	20100324	JP 2006-512162	20040331
US 20070285005	A1	20071213	US 2007-594600	20070608 <--
PRAI WO 2004-JP4662	A	20040331		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005101911	IPCI	H05B0033-14 [ICM,7]; H05B0033-12 [ICS,7]; C09K0011-06 [ICS,7]
	IPCR	C09K0011-06 [I,C*]; C09K0011-06 [I,A]; H01L0051-00 [I,C*]; H01L0051-00 [I,A]; H01L0051-50 [I,C*]; H01L0051-50 [I,A]; H05B0033-12 [I,C*]; H05B0033-12 [I,A]; H05B0033-14 [I,C*]; H05B0033-14 [I,A]
	ECLA	H05B033/14; C09K011/06; H01L051/00M6D4; H01L051/50G; H01L051/50K; M09K; M09K; M09K; M09K; T01L; T01L; T01L
TW 252051	IPCI	H05B0033-00 [ICS,7]; G09F0009-00 [ICS,7]
	IPCR	H05B0033-00 [I,C]; H05B0033-00 [I,A]; C09K0011-06 [I,C*]; C09K0011-06 [I,A]; G09F0009-00 [I,C]; G09F0009-00 [I,A]; H01L0051-00 [I,C*]; H01L0051-00 [I,A]; H01L0051-50 [I,C*]; H01L0051-50 [I,A]; H05B0033-12 [I,C*]; H05B0033-12 [I,A]; H05B0033-14 [I,C*]; H05B0033-14 [I,A]
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JP 4438003	IPCI	H01L0051-50 [I,A]; H05B0033-12 [I,A]; C09K0011-06 [I,A]; G09F0009-30 [I,A]; H01L0027-32 [I,A]; H01L0027-28 [I,C*]
US 20070285005	IPCI	H01J0001-63 [I,A]; H01J0001-00 [I,C*]
	NCL	313/504.000

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB An organic electroluminescent (EL) device comprises an anode, a hole

injection layer, a hole transport layer, a blue light-emitting layer, a hole blocking layer, an electron transport layer, and a cathode formed sequentially on a glass substrate wherein the chromaticity of blue is enhanced while prolonging the lifetime by composing the electron transport layer of an electron transport material and a light-emitting material having a peak wavelength of emission spectrum longer than 555 nm, consuming holes by the light-emitting material and suppressing deterioration of the electron transport material.

ST org electroluminescent device display

IT Electroluminescent devices
(displays, organic; organic electroluminescent device and organic electroluminescent display)

IT Luminescent screens
(electroluminescent, organic; organic electroluminescent device and organic electroluminescent display)

IT Electroluminescent devices
(organic electroluminescent device and organic electroluminescent display)

IT 14172-92-0 28755-93-3 790273-07-3
RL: DEV (Device component use); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process); USES (Uses)
(organic electroluminescent device and organic electroluminescent display)

IT 29261-33-4, F4-TCNQ
RL: DEV (Device component use); MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(organic electroluminescent device and organic electroluminescent display)

IT 2085-33-8, Alq3 7429-90-5, Aluminum, properties 7789-24-4, Lithium fluoride, properties 58328-31-7, CBP 123847-85-8, α-NPD 146162-54-1, BAlq 185690-41-9, 2-TNATA
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(organic electroluminescent device and organic electroluminescent display)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE CITED REFERENCES

(1) Chemipro Kasei Kaisha Ltd; JP 08-78163 A 1996 CAPLUS
(2) Fujitsu Limited; US 20030157365 A1 2003 CAPLUS
(3) Fujitsu Limited; JP 2003234190 A 2003 CAPLUS
(4) Idemitsu Kosan Co Ltd; JP 06-207170 A 1994 CAPLUS
(5) Idemitsu Kosan Co Ltd; JP 10-3990 A 1998 CAPLUS
(6) Oki Electric Industry Co Ltd; JP 10-231479 A 1998 CAPLUS
(7) Toray Industries Inc; JP 200263988 A 2002

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E1 THROUGH E11 ASSIGNED

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	6.40	6.62

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.85	-0.85

FILE 'REGISTRY' ENTERED AT 11:58:57 ON 09 APR 2010

Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 7 APR 2010 HIGHEST RN 1217434-06-4
DICTIONARY FILE UPDATES: 7 APR 2010 HIGHEST RN 1217434-06-4

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predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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             1 123847-85-8/BI
               (123847-85-8/RN)
             1 14172-92-0/BI
               (14172-92-0/RN)
             1 146162-54-1/BI
               (146162-54-1/RN)
             1 185690-41-9/BI
               (185690-41-9/RN)
             1 2085-33-8/BI
               (2085-33-8/RN)
             1 28755-93-3/BI
               (28755-93-3/RN)
             1 29261-33-4/BI
               (29261-33-4/RN)
             1 58328-31-7/BI
               (58328-31-7/RN)
             1 7429-90-5/BI
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             1 790273-07-3/BI
               (790273-07-3/RN)
L2          11 (123847-85-8/BI OR 14172-92-0/BI OR 146162-54-1/BI OR 185690-41-
               9/BI OR 2085-33-8/BI OR 28755-93-3/BI OR 29261-33-4/BI OR 58328-
               31-7/BI OR 7429-90-5/BI OR 7789-24-4/BI OR 790273-07-3/BI)

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YOU HAVE REQUESTED DATA FROM 11 ANSWERS - CONTINUE? Y/(N):y

L2   ANSWER 1 OF 11  REGISTRY  COPYRIGHT 2010 ACS on STN
RN   790273-07-3  REGISTRY
ED   Entered STN:  29 Nov 2004
CN   Pyrene, 1,3,6,8-tetrakis([1,1'-biphenyl]-4-yl)-  (CA INDEX NAME)
OTHER NAMES:
CN   1,3,6,8-Tetra(4-phenylphenyl)pyrene
MF   C64 H42
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL
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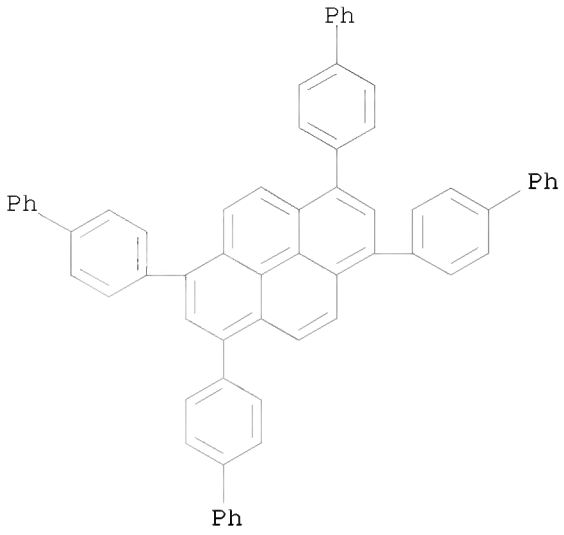
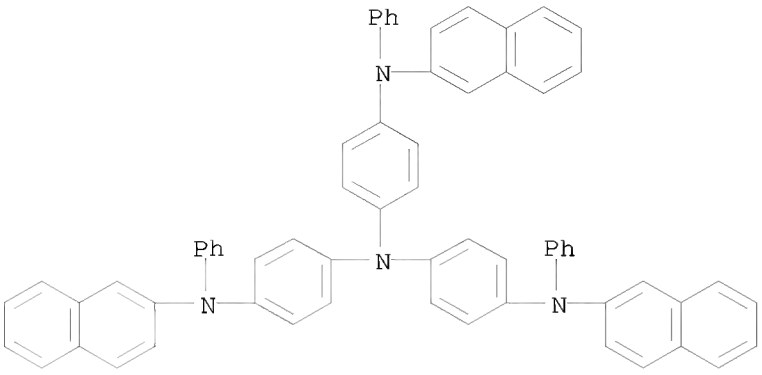


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11 REFERENCES IN FILE CA (1907 TO DATE)
11 REFERENCES IN FILE CAPLUS (1907 TO DATE)

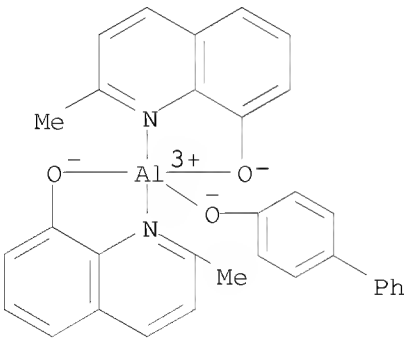
L2 ANSWER 2 OF 11 REGISTRY COPYRIGHT 2010 ACS on STN
RN 185690-41-9 REGISTRY
ED Entered STN: 04 Feb 1997
CN 1,4-Benzenediamine, N1-2-naphthalenyl-N4,N4-bis[4-(2-naphthalenylphenylamino)phenyl]-N1-phenyl- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,4-Benzenediamine, N-2-naphthalenyl-N',N'-bis[4-(2-naphthalenylphenylamino)phenyl]-N-phenyl- (9CI)
OTHER NAMES:
CN 2TNATA
CN 4,4',4''-Tris(N-2-naphthyl-N-phenyl-amino)triphenylamine
CN 4,4',4''-Tris[2-naphthyl(phenyl)amino]triphenylamine
CN 4,4',4''-Tris[N,N-(2-naphthyl)phenylamino]triphenylamine
MF C66 H48 N4
CI COM
SR CA
LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, TOXCENTER, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

315 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
340 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2010 ACS on STN
RN 146162-54-1 REGISTRY
ED Entered STN: 25 Feb 1993
CN Aluminum, ([1,1'-biphenyl]-4-olato)bis(2-methyl-8-quinolinolato-κN1,κO8)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aluminum, ([1,1'-biphenyl]-4-olato)bis(2-methyl-8-quinolinolato-N1,O8)-
OTHER NAMES:
CN (1,1'-Biphenyl-4'-oxy)bis(8-hydroxy-2-methylquinolinato)aluminum
CN (2-Methyl-8-quinolinolato)(4-phenylphenolato)aluminum
CN BAlq
CN BAlq3
CN Bis(2-methyl-8-quinolinolato)(4-phenylphenolato)aluminum
MF C32 H25 Al N2 O3
CI CCS
SR CA
LC STN Files: AGRICOLA, CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, TOXCENTER, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

742 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
750 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2010 ACS on STN
RN 123847-85-8 REGISTRY
ED Entered STN: 17 Nov 1989
CN [1,1'-Biphenyl]-4,4'-diamine, N4,N4'-di-1-naphthalenyl-N4,N4'-diphenyl-
(CA INDEX NAME)
OTHER CA INDEX NAMES:
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-di-1-naphthalenyl-N,N'-diphenyl- (9CI)
OTHER NAMES:
CN α-NPD
CN 4,4'-Bis[(1-naphthyl)phenylamino]-1,1'-biphenyl
CN 4,4'-Bis[N-(1-naphthyl)-N-phenylamino]biphenyl
CN 4,4'-Bis[N-phenyl-N-(1''-naphthyl)amino]biphenyl
CN 4,4'-Bis[phenyl(naphthalen-1-yl)amino]-1,1'-biphenyl
CN N,N'-Biphenyl-N,N'-bis(1-naphthyl)[1,1'-biphenyl]-4,4'-diamine
CN N,N'-Biphenyl-N,N'-bis-(1-naphthenyl)-[1,1'-biphenyl]-4,4'-diamine
CN N,N'-Bis(α-naphthyl)-N,N'-diphenyl-1,1'-biphenyl-4,4'-diamine
CN N,N'-Bis(α-naphthyl)-N,N'-diphenylbenzidine
CN N,N'-Bis(1-naphthyl)-N,N'-diphenyl-1,1'-biphenyl-4,4'-diamine
CN N,N'-Bis(1-naphthyl)-N,N'-diphenyl-4,4'-benzidine
CN N,N'-Bis(naphthalen-1-yl)-N,N'-diphenylbenzidine
CN N,N'-Di(1-naphthyl)-N,N'-diphenyl-4,4'-diaminobiphenyl
CN N,N'-Di(naphthalen-1-yl)-N,N'-diphenylbenzidene
CN N,N'-Di(naphthalen-1-yl)-N,N'-diphenylbenzidine
CN N,N'-Di-1-naphthyl-N,N'-diphenylbenzidine
CN N,N'-Diphenyl-N,N'-bis(α-naphthyl)-1,1'-biphenyl-4,4'-diamine
CN N,N'-Diphenyl-N,N'-bis(1-naphthyl)-1,1'-biphenyl-4,4'-diamine
CN N,N'-Diphenyl-N,N'-di(1-naphthyl)benzidine
CN N,N-Bis(1-naphthyl)-N,N'-diphenyl-1,1'-biphenyl-4,4'-diamine
CN NPB
CN NPB (photoreceptor)
CN NPD
CN ST 16/7
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CI COM
SR CA
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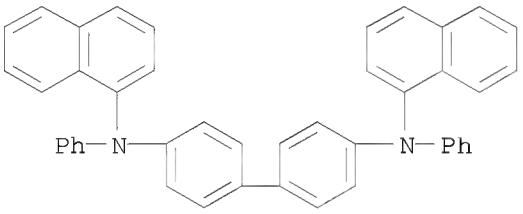
USPATFULL



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5224 REFERENCES IN FILE CA (1907 TO DATE)
15 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5371 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2010 ACS on STN

RN 58328-31-7 REGISTRY
ED Entered STN: 16 Nov 1984
CN 9H-Carbazole, 9,9'-[1,1'-biphenyl]-4,4'-diylbis- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Carbazole, 9,9'-(4,4'-biphenylylene)di- (6CI)
OTHER NAMES:
CN 4,4'-Bis(carbazol-9-yl)biphenyl
CN 4,4'-Bis(N-carbazole)biphenyl
CN 4,4'-Bis(N-carbazolyl)-1,1'-biphenyl
CN 4,4'-Bis(N-carbazolyl)biphenyl
CN 4,4'-Biscarbazolylbiphenyl
CN 4,4'-Di(N-carbazole)-1,1'-biphenyl
CN 4,4'-Di(N-carbazolyl)biphenyl
CN 4,4'-N,N'-Dicarbazolylbiphenyl
CN CBP
CN CBP (dye)
CN CPB
CN DCBP
CN DCBP (charge transfer agent)
DR 958890-11-4
MF C36 H24 N2
CI COM
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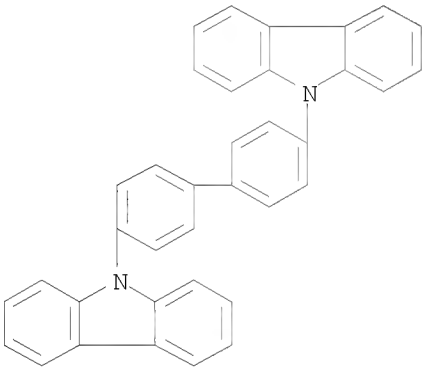
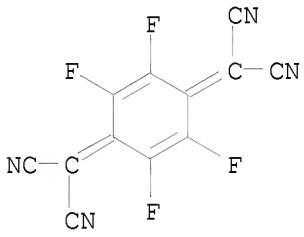


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1520 REFERENCES IN FILE CA (1907 TO DATE)
19 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1594 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2010 ACS on STN
RN 29261-33-4 REGISTRY
ED Entered STN: 16 Nov 1984
CN Propanedinitrile, 2,2'-(2,3,5,6-tetrafluoro-2,5-cyclohexadiene-1,4-diylidene)bis- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,5-Cyclohexadiene-Δ1,α:4,α'-dimalononitrile, 2,3,5,6-tetrafluoro- (8CI)
OTHER NAMES:
CN 2,3,5,6-Tetrafluoro-7,7,8,8-tetracyano-p-quinodimethane

CN 2,3,5,6-Tetrafluoro-7,7,8,8-tetracyanoquinodimethane
CN 7,7,8,8-Tetracyano-2,3,5,6-tetrafluoroquinodimethane
CN F4-TCNQ
CN Perfluoro-7,7,8,8-tetracyano-p-quinodimethane
CN Perfluoro-TCNQ
CN Perfluorotetracyano-p-quinodimethane
CN TCNQF4
CN Tetrafluoro-TCNQ
CN Tetrafluorotetracyano-p-quinodimethane
CN Tetrafluorotetracyanoquinodimethane
MF C12 F4 N4
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CIN, CSCHEM, GMELIN*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, PROMT, TOXCENTER, USPAT2, USPATFULL, USPATOLD
(*File contains numerically searchable property data)



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14 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
576 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2010 ACS on STN
RN 28755-93-3 REGISTRY
ED Entered STN: 16 Nov 1984
CN Iron, chloro[2,3,7,8,12,13,17,18-octaethyl-21H,23H-porphinato(2-)-κN21,κN22,κN23,κN24]-, (SP-5-12)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 21H,23H-Porphine, 2,3,7,8,12,13,17,18-octaethyl-, iron complex
CN 21H,23H-Porphine, iron deriv.
CN Iron, chloro[2,3,7,8,12,13,17,18-octaethyl-21H,23H-porphinato(2-)-N21,N22,N23,N24]-, (SP-5-12)-
CN Iron, chloro[2,3,7,8,12,13,17,18-octaethylporphinato(2-)]- (8CI)
OTHER NAMES:
CN 2,3,7,8,12,13,17,18-Octaethyl porphine iron(III) chloride
CN Chloro(2,3,7,8,12,13,17,18-octaethylporphyrinato)iron
CN Chloro(2,3,7,8,12,13,17,18-octaethylporphyrinato)iron(III)
CN Chloro(octaethylporphinato)iron
CN Chloro(octaethylporphyrinato)iron
CN Iron octaethylporphyrin chloride
CN Iron(III) octaethylporphyrin chloride
CN Octaethylporphyrinatoiron(III) chloride
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CI CCS, COM
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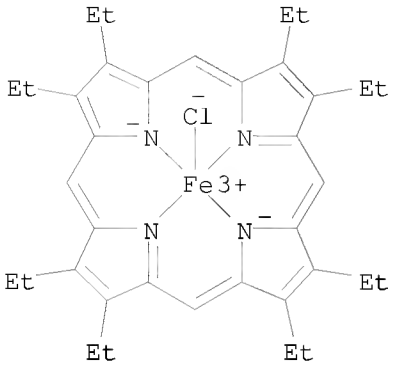
TOXCENTER, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

213 REFERENCES IN FILE CA (1907 TO DATE)
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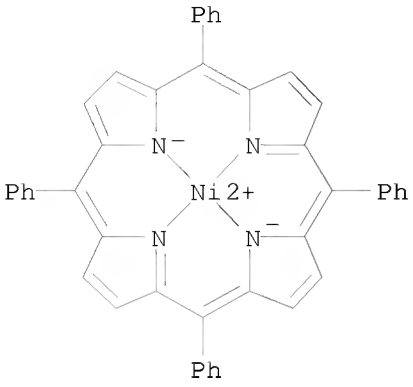
213 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2010 ACS on STN
RN 14172-92-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Nickel, [5,10,15,20-tetraphenyl-21H,23H-porphinato(2-)-κN21,κN22,κN23,κN24]-, (SP-4-1)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 21H,23H-Porphine, 5,10,15,20-tetraphenyl-, nickel complex
CN 21H,23H-Porphine, nickel deriv.
CN Nickel, [α,β,γ,δ-tetraphenylporphinato(2-)]- (7CI)
CN Nickel, [5,10,15,20-tetraphenyl-21H,23H-porphinato(2-)-N21,N22,N23,N24]-, (SP-4-1)-
CN Nickel, [5,10,15,20-tetraphenylporphinato(2-)]- (8CI)
CN Porphine, α,β,γ,δ-tetraphenyl-, Ni deriv. (6CI)
OTHER NAMES:
CN (5,10,15,20-Tetraphenylporphyrinato)nickel
CN (meso-Tetraphenylporphinato)nickel
CN (meso-Tetraphenylporphinato)nickel(II)
CN (meso-Tetraphenylporphyrinato)nickel
CN (Tetraphenylporphyrinato)nickel
CN Nickel 5,10,15,20-tetraphenyl-21H,23H-porphyrin
CN Nickel 5,10,15,20-tetraphenylporphyrin
CN Nickel meso-tetraphenylporphyrin
CN Nickel tetraphenylporphine
CN Nickel tetraphenylporphyrin
CN Nickel(II) 5,10,15,20-tetraphenylporphine
CN Nickel(II) meso-tetraphenylporphyrin
CN Nickel(II) tetraphenylporphyrin
CN Tetraphenylporphine nickel complex
CN [5,10,15,20-Tetraphenylporphinato(2-)]nickel
CN [meso-Tetraphenylporphinato(2-)]nickel
MF C44 H28 N4 Ni
CI CCS, COM

LC STN Files: AGRICOLA, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS,
    CHEMINFORMRX, CSCHEM, DETHERM*, GMELIN*, IFICDB, IFIPAT, IFIUDB,
    MEDLINE, MSDS-OHS, TOXCENTER, USPAT2, USPATFULL, USPATOLD
      (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

          451 REFERENCES IN FILE CA (1907 TO DATE)
            2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
          452 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 9 OF 11 REGISTRY COPYRIGHT 2010 ACS on STN
RN 7789-24-4 REGISTRY
ED Entered STN: 16 Nov 1984
CN Lithium fluoride (LiF) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Lithium fluoride (7CI, 8CI)
OTHER NAMES:
CN LFDNB
CN Lithium monofluoride
CN Lithium monofluoride (LiF)
CN NSC 12957
CN NTL 50
CN PTL 710
CN TLD 100
DR 12285-65-3, 64975-45-7, 40619-18-9
MF F Li
CI COM
LC STN Files: AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT,
    CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*,
    EMBASE, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*,
    MSDS-OHS, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, USPAT2, USPATFULL,
    USPATOLD
      (*File contains numerically searchable property data)
    Other Sources: DSL**, EINECS**, TSCA**
      (**Enter CHEMLIST File for up-to-date regulatory information)

F—Li

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

23515 REFERENCES IN FILE CA (1907 TO DATE)
159 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
23732 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 10 OF 11 REGISTRY COPYRIGHT 2010 ACS on STN
RN 7429-90-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN Aluminum (CA INDEX NAME)
OTHER NAMES:
CN 0100MSR
CN 0670TS
CN 0870MSO
CN 0900X
CN 1001M
CN 102B
CN 102C
CN 1100H24
CN 1100P-H18
CN 1110W
CN 130W
CN 13T
CN 1440YL
CN 1N99
CN 2024PLT0
CN 20B2C-M
CN 20M2S
CN 210EA
CN 350D
CN 350F
CN 40XD
CN 4690NS
CN 5207N
CN 5422NS
CN 5501N
CN 5502N
CN 5502SW
CN 550N
CN 561SW
CN 5654NS
CN 5N
CN 5XD
CN 6050T5
CN 66NLB
CN 7000AR
CN 7160nl-NW
CN 716ON
CN 723BS150
CN 725EA
CN 725N
CN 7620NS
CN 7640NS
CN 7680NS
CN 770SW
CN 8011A
CN 804NL
CN 8F02A
CN 900M
CN 91-2343T
CN 930W
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY

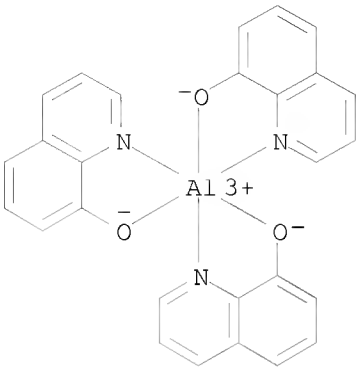
DR 12766-45-9, 113962-66-6, 37202-64-5, 80341-19-1, 91728-14-2, 39302-71-1, 39332-62-2, 182260-45-3, 185464-37-3, 257888-99-6, 298688-47-8
MF Al
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Al

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

466494 REFERENCES IN FILE CA (1907 TO DATE)
14964 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
468471 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 11 OF 11 REGISTRY COPYRIGHT 2010 ACS on STN
RN 2085-33-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN Aluminum, tris(8-quinolinolato-κN1,κO8)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aluminum, tris(8-quinolinolato)- (6CI, 7CI, 8CI)
CN Aluminum, tris(8-quinolinolato-N1,O8)-
OTHER NAMES:
CN 8-Hydroxyquinoline aluminum
CN Al 8Q
CN Alq
CN Alq3
CN Aluminum 8-hydroxyquinolinate
CN Aluminum oxinate
CN Aluminum tris(8-hydroxyquinolinate)
CN Aluminum tris(8-quinolinolate)
CN Aluminum, tris(8-hydroxyquinolinato)-
CN Hydroxyquinoline aluminum
CN Tri-8-quinolinolatoaluminum
CN Tris(8-hydroxyquinolato)aluminum
CN Tris(8-hydroxyquinolinate)aluminum
CN Tris(8-hydroxyquinolinato)aluminum
CN Tris(8-hydroxyquinolinol-N1,O8)aluminum
CN Tris(8-quinolinol)aluminum
CN Tris(8-quinolinolato)aluminum
CN Tris(8-quinolinolato)aluminum(III)
CN Tris-(8-hydroxyquinoline)aluminum
DR 11094-99-8, 24731-66-6
MF C27 H18 Al N3 O3
CI CCS, COM
LC STN Files: AGRICOLA, BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, GMELIN*, IFICDB, IFIPAT, IFIUDB, MRCK*, PIRA, RTECS*, TOXCENTER, USPAT2, USPATFULL, USPATOLD
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9148 REFERENCES IN FILE CA (1907 TO DATE)
41 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
9340 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	24.08	30.70

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-0.85

FILE 'REGISTRY' ENTERED AT 12:00:07 ON 09 APR 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 7 APR 2010 HIGHEST RN 1217434-06-4
DICTIONARY FILE UPDATES: 7 APR 2010 HIGHEST RN 1217434-06-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 8, 2010.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L2 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L3 1 790273-07-3/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.59	31.29

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-0.85

FILE 'CAPLUS' ENTERED AT 12:00:11 ON 09 APR 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 9 Apr 2010 VOL 152 ISS 16
FILE LAST UPDATED: 8 Apr 2010 (20100408/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2010

CAplus now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L3

L4 11 L3

=> S L4 AND 1950<=PY<=2004
23321913 1950<=PY<=2004
L5 2 L4 AND 1950<=PY<=2004

=> DIS L5 1 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 3.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:656260 CAPLUS
DOCUMENT NUMBER: 143:275223
TITLE: Tetra-substituted pyrenes: new class of blue emitter for organic light-emitting diodes
AUTHOR(S): Sotoyama, Wataru; Sato, Hiroyuki; Kinoshita, Masaru; Takahashi, Toshiro; Matsuura, Azuma; Kodama, Jun; Sawatari, Norio; Inoue, Hiroshi
CORPORATE SOURCE: Functional Organic Materials Laboratory, Fujitsu Laboratories Limited, Morinosato-Wakamiya, Atsugi, 243-0197, Japan
SOURCE: Digest of Technical Papers - Society for Information Display International Symposium (2003), 34, 1294-1297
CODEN: DTPSDS
PUBLISHER: Society for Information Display
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
ABSTRACT:
We have developed a new class of highly-fluorescent blue emitter for organic light-emitting diodes (OLEDs) consisting of tetra-substituted pyrenes. From the anal. of the excited state diagrams of pyrene and its derivs. by MO calcns., we found that the new tetra-substituted pyrenes are highly fluorescent. OLEDs fabricated using the synthesized tetra-substituted pyrenes as emitters showed high efficiency and good color purity.

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L5 2 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 3.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:965354 CAPLUS
DOCUMENT NUMBER: 141:403312
TITLE: 1,3,6,8-Tetrasubstituted pyrene compounds, organic electroluminescent device and organic electroluminescent display
INVENTOR(S): Sotoyama, Wataru; Sato, Hiroyuki; Matsuura, Azuma; Kinoshita, Masaru; Takahashi, Toshiro
PATENT ASSIGNEE(S): Fujitsu Limited, Japan
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004096945	A1	20041111	WO 2003-JP5577	20030501 <--
W: JP, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
EP 1621597	A1	20060201	EP 2003-721011	20030501
R: DE, GB				
US 20050238920	A1	20051027	US 2005-166692	20050627

PRIORITY APPLN. INFO.: WO 2003-JP5577 W 20030501
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
ABSTRACT:
The invention refers to an organic electroluminescent device containing, as a luminescent material, a 1,3,6,8-tetrasubstituted pyrene compound wherein the substituents are Ph rings with at least one substituted aryl as a substituent.

OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	10.51	41.80

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.70	-2.55

FILE 'REGISTRY' ENTERED AT 12:02:27 ON 09 APR 2010

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 7 APR 2010 HIGHEST RN 1217434-06-4
DICTIONARY FILE UPDATES: 7 APR 2010 HIGHEST RN 1217434-06-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 8, 2010.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L2 7 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L6 1 28755-93-3/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.59	42.39

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-2.55

FILE 'CAPLUS' ENTERED AT 12:02:31 ON 09 APR 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 9 Apr 2010 VOL 152 ISS 16
FILE LAST UPDATED: 8 Apr 2010 (20100408/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2010

CAplus now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L6

L7 213 L6

=> S L7 AND 2002<=PY<=2003
2314925 2002<=PY<=2003
L8 9 L7 AND 2002<=PY<=2003

=> DIS L8 1 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 3.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L8 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:345282 CAPLUS
DOCUMENT NUMBER: 142:189724
TITLE: Metalloporphyrins thin films sensors array equipped with backpropagation network for vapor recognition
AUTHOR(S): Akrajas; Salleh, Muhamad Mat; Yahaya, Muhammad
CORPORATE SOURCE: School of Applied Physics, Faculty of Science and Technology, Universiti Kebangsaan Malaysia, Selangor, Malay.
SOURCE: Proceedings - IEEE International Conference on Semiconductor Electronics, 5th, Penang, Malaysia, Dec. 19-21, 2002 (2002), 115-120. Editor(s): Shaari, Sahbudin; Majlis, Burhanuddin Yeop. Institute of Electrical and Electronics Engineers: New York, N. Y.
CODEN: 69FHQV; ISBN: 0-7803-7578-5
DOCUMENT TYPE: Conference
LANGUAGE: English
ABSTRACT:
This work reports the fabrication of an array of sensors system equipped with a pattern recognition system to classify four types of vapor samples; 2-propanol, ethanol, acetone and cyclohexane. The array comprises eight metalloporphyrins derivs. thin films as sensing element. A backpropagation artificial neural network was used as pattern classifier. The presentation of a vapor sample towards the sensing elements produced the response pattern which was considered as the vapor finger print. A library of the vapor pattern which was introduced to the sensing elements was built up. The pattern was then labeled and introduced to the neural network. After proper learning, the network was tried to recognize the vapor pattern. The recognition results indicated that the system was able to recognize the sample with the overall system performance is 0.75.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L8 2 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 3.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L8 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2003:894126 CAPLUS
DOCUMENT NUMBER: 140:245212
TITLE: EPR and Moessbauer characterization of Fe(III)- and Fe(I)-azaporphyrins and comparison to related iron porphyrins
AUTHOR(S): Dzilinski, K.; Kaczmarzyk, T.; Jackowski, T.; Sinyakov, G. N.; Egorova, G. D.
CORPORATE SOURCE: Institute of Physics, Czestochowa University of Technology, Czestochowa, 42-200, Pol.
SOURCE: Molecular Physics Reports (2003), 37, 35-41
CODEN: MPREFZ; ISSN: 1505-1250
PUBLISHER: Osrodek Wydawnictw Naukowych, Polish Academy of

Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A spectroscopic comparative study of Fe(III)- and Fe(I)-porphyrins with unsubstituted methine bridges CH at meso positions of the porphyrin ring (octaethylporphyrin) and successively substituted by N atoms (monoaza-, diaza-, tetraazaporphyrins and phthalocyanine) was carried out using the ESR and Moessbauer methods. The increase of a number of N atoms at meso positions changes the character of quantum-mech. mixed spin state of Fe(III) ions (S = 5/2, 3/2) by the increase of the intermediate-spin (S = 3/2) contribution. ESR spectrum of Fe(III)(Cl)-diazaoctaethylporphyrin in THF solution exhibits 2 kinds of hyperfine splittings which were assigned to porphyrin-solvent mol. interactions. Electron configuration of Fe(I) ion in azaporphyrins corresponds to the low-spin state (S = 1/2) as in the case of Fe(I)-octaethylporphyrin with the unsubstituted meso positions.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L8 3 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 3.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L8 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2003:727767 CAPLUS
DOCUMENT NUMBER: 139:371115
TITLE: Determination of the Complete Set of Iron Normal Modes in the Heme Model Compound FeIII(OEP)Cl from Nuclear Resonance Vibrational Spectroscopic Data
AUTHOR(S): Budarz, Timo E.; Prohofsky, E. W.; Durbin, Stephen M.; Sjodin, Theodore; Sage, J. Timothy; Sturhahn, Wolfgang; Alp, E. Ercan
CORPORATE SOURCE: Department of Physics, Purdue University, West Lafayette, IN, 47907, USA
SOURCE: Journal of Physical Chemistry B (2003), 107(40), 11170-11177
CODEN: JPCBFK; ISSN: 1520-6106
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The vibrational spectrum of 57Fe in chloro Fe octaethylporphyrin, Fe(OEP)Cl, was calculated by normal-mode anal. refined to absorption data from nuclear resonance vibrational spectroscopy. This technique directly measures the amplitudes and frequencies for all modes that have significant Fe participation, providing rigorous constraints to the best-fit values for the force consts. The calculated normal modes reveal the importance of Fe displacements perpendicular to the heme plane for both the lowest frequency modes and the ligand modes. The actual normal modes of Fe(OEP)Cl are not well described by single modes of the core porphyrin; instead they are hybrids of multiple core modes and Et and chlorine displacements.

OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L8 4 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 3.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L8 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2003:545252 CAPLUS
DOCUMENT NUMBER: 139:254272
TITLE: Effect of the Sixth Axial Ligand in CS-Ligated Iron(II)octaethylporphyrinates: Structural and Moessbauer Studies
AUTHOR(S): Cao, Changsheng; Dahal, S.; Shang, Mayou; Beatty, Alicia M.; Hibbs, Wendy; Schulz, Charles E.; Scheidt, W. Robert
CORPORATE SOURCE: Department of Chemistry and Biochemistry, University of Notre Dame, Notre Dame, IN, 46556, USA
SOURCE: Inorganic Chemistry (2003), 42(17), 5202-5210
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:254272
ABSTRACT:
The effect of a 6th ligand in low-spin thiocarbonyl-ligated Fe(II) octaethylporphyrinates was studied. Six-coordinate complexes were synthesized and characterized by Mossbauer and IR spectroscopy and single-crystal x-ray structure detns. The results are compared with the five-coordinate parent complex. The crystal structures of [Fe(OEP)(CS)(1-MeIm)] and [Fe(OEP)(CS)(Py)] are reported and discussed. The 1-methylimidazole and pyridine derivs. exhibit Fe-C(CS) bond distances of 1.703(4) and 1.706(2) Å that are significantly longer than the 1.662(3) Å reported for five-coordinate [Fe(OEP)(CS)] (Scheidt, W. R.; Geiger, D. K. Inorg. Chemical 1982, 21, 1208). The trans Fe-N(ligand) distances of 2.112(3) and 2.1550(15) Å observed for the 1-methylimidazole and pyridine complex are .apprx.0.13 Å longer than those observed for analogous bis-ligated complexes and are consistent with a significant structural trans effect for the CS ligand. Mossbauer studies carried out for five- and six-coordinate thiocarbonyl derivs. with several different 6th axial ligands reveal interesting features. All derivs. exhibit very small isomer shift values, consistent with a very strong interaction between Fe and CS. The five-coordinate derivative has δFe = 0.08 mm/s, and the six-coordinate complexes exhibit δFe = 0.14 to 0.19 mm/s at 4.2 K. The five-coordinate complex shows a large quadrupole splitting (ΔEq = 1.93 mm/s at 4.2 K) which is reduced on coordination of the 6th ligand (ΔEq = 0.42-0.80 mm/s at 4.2 K). Addition of a 6th ligand also leads to a small decrease in the value of νCS. Correlations in structural, IR, and Mossbauer results suggest that the 6th ligand effect is primarily induced by changes in σ-bonding. The structure of [Fe(OEP)(CS)(MeOH)] is briefly reported. Crystal data: [Fe(OEP)(CS)(1-MeIm)] crystallizes in the monoclinic system, space group P21/n, Z = 4, a 9.5906(5), b 16.704(4), c 23.1417(6) Å, β 100.453(7)°; [Fe(OEP)(CS)(Py)] crystallizes in the triclinic system, space group P.hivin.1, Z = 5, a 13.9073(6), b 16.2624(7), c 22.0709(9) Å, α 70.586(1), β 77.242(1), γ 77.959(1)°; [Fe(OEP)(CS)(MeOH)] crystallizes in the triclinic system, space group P.hivin.1, Z = 1, a 9.0599(5), b 9.4389(5), c 11.0676(6) Å, α 90.261(1), β 100.362(1), γ 114.664(1)°.

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
REFERENCE COUNT: 76 THERE ARE 76 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L8 5 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 3.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L8 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2003:448574 CAPLUS
DOCUMENT NUMBER: 139:342863
TITLE: Effect of the solvent on electronic absorption and EPR spectra of a reduced form of Fe(I)-octaethylporphyrins
AUTHOR(S): Kaczmarzyk, Tomasz; Dzilinski, Kazimierz
CORPORATE SOURCE: Inst. Fiz., Wydz. Inz. Procesowej, Mater. i Fiz. Stosowanej, Politech. Czestochowska, Czestochowa, Pol.
SOURCE: Nowe Technologie i Osiagniecia w Metalurgii i Inzynierii Materialowej, Miedzynarodowa Sesja Naukowa, 3rd, Czestochowa, Poland, May, 2002 (2002), 401-405. Wydawnictwo Wydzialu Inzynierii Procesowej, Materialowej i Fizyki Stosowanej Politechniki Czestochowskiej: Czestochowa, Pol.
CODEN: 69EAKX; ISBN: 83-87745-51-0
DOCUMENT TYPE: Conference
LANGUAGE: Polish
ABSTRACT:
The results obtained from electronic absorption and EPR spectroscopies for Fe(I)OEP in THF and DME solns. are considered. Mols. of solvent interact with the Fe(I)OEP complex through π-orbitals which overlap THF mols.

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L8 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2003:365424 CAPLUS
DOCUMENT NUMBER: 139:42165
TITLE: Symmetry and Bonding in Metalloporphyrins. A Modern Implementation for the Bonding Analyses of Five- and Six-Coordinate High-Spin Iron(III)-Porphyrin Complexes through Density Functional Calculation and NMR Spectroscopy
AUTHOR(S): Cheng, Ru-Jen; Chen, Ping-Yu; Lovell, Timothy; Liu, Tiqing; Noodleman, Louis; Case, David A.
CORPORATE SOURCE: Department of Chemistry, National Chung-Hsing University, Taichung, 402, Taiwan
SOURCE: Journal of the American Chemical Society (2003), 125(22), 6774-6783
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Bonding interactions between the iron and the porphyrin macrocycle of five- and six-coordinate high-spin iron(III)-porphyrin complexes are analyzed within the framework of approx. d. functional theory with the use of the quant. energy decomposition scheme in combination with removal of the vacant π* orbitals of the porphyrin from the valence space. Although the relative extent of the iron-porphyrin interactions can be evaluated qual. through the spin population and orbital contribution analyses, the bond strengths corresponding to different symmetry representations can be only approximated quant. by the

orbital interaction energies. In contrast to previous suggestions, there are only limited Fe → P π* back-bonding interactions in high-spin iron(III)-porphyrin complexes. It is the symmetry-allowed bonding interaction between dz2 and a2u orbitals that is responsible for the pos. π spin densities at the meso-carbons of five-coordinate iron(III)-porphyrin complexes. Both five- and six-coordinate complexes show significant P → Fe π donation, which is further enhanced by the movement of the metal toward the in-plane position for six-coordinate complexes. These bonding characteristics correlate very well with the NMR data reported exptl. The extraordinary bonding interaction between dz2 and a2u orbitals in five-coordinate iron(III)-porphyrin complexes offers a novel symmetry-controlled mechanism for spin transfer between the axial ligand σ system and the porphyrin π system and may be critical to the electron transfer pathways mediated by hemoproteins.

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L8 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2002:498980 CAPLUS
DOCUMENT NUMBER: 137:256985
TITLE: Enriching the selectivity of metalloporphyrins chemical sensors by means of optical technique
AUTHOR(S): Akrajas, M.; Mat Salleh, Muhamad; Yahaya, Muhammad
CORPORATE SOURCE: Faculty of Science and Technology, School of Applied Physics, Universiti Kebangsaan Malaysia, Selangor, 43600 UKM, Malay.
SOURCE: Sensors and Actuators, B: Chemical (2002), B85(3), 191-196
CODEN: SABCEB; ISSN: 0925-4005
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
In the electronic nose, the sensing elements must demonstrate high selectivity feature toward various kinds of gases. This paper reports the use of the optical technique to enrich the selectivity of four metallo-octaethyl porphyrins (with the metal atoms of Mn, Fe, Co and Ru) Langmuir-Blodgett (LB) films toward four vapor samples; 2-propanol, ethanol, acetone and cyclohexane. The optical system was developed using these materials as sensing elements and four LED's of different colors; red, yellow, green and blue, as light sources. The sensing sensitivity was based on the change on the light intensity at the peak wavelength of light sources after being reflected by the films. The sensitivity of the films depends on the wavelength of the light source used and the metal atom at the center of the metalloporphyrins mols. Each thin film produced four response signals or 16 signals for the whole system for a particular vapor. These 16 signals constituted the pattern of the signature of a vapor. The signature of each vapor is different from each other. This work indicated that the amount of the sensing elements used to create a high selectivity gas sensor system may be reduced.

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L8 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2002:80911 CAPLUS
DOCUMENT NUMBER: 136:288162
TITLE: meso Substituent Effects on the Geometric and Electronic Structures of High-Spin and Low-Spin Iron(III) Complexes of Mono-meso-Substituted Octaethylporphyrins
AUTHOR(S): Kalish, Heather; Camp, Jason E.; Stepien, Marcin; Latos-Grazynski, Lechoslaw; Olmstead, Marilyn M.; Balch, Alan L.
CORPORATE SOURCE: Departments of Chemistry, University of California, Davis, CA, 95616, USA
SOURCE: Inorganic Chemistry (2002), 41(4), 989-997
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Introduction of a single meso substituent into ClFeIII(OEP) or K[(NC)2Fe(OEP)] results in significant changes in the geometric and/or spectroscopic properties of these complexes. The mono-meso-substituted iron(III) complexes ClFeIII(meso-Ph-OEP), ClFeIII(meso-Bu-OEP), ClFeIII(meso-MeO-OEP), ClFeIII(meso-Cl-OEP), ClFeIII(meso-NC-OEP), ClFeIII(meso-HC(O)-OEP), and ClFeIII(meso-O2N-OEP) were isolated and characterized by their UV/visible and paramagnetically shifted 1H NMR spectra. The structures of both ClFeIII(meso-Ph-OEP) and ClFeIII(meso-NC-OEP) were determined by x-ray crystallog. Both mols. have five-coordinate structures typical for high-spin (S = 5/2) iron(III) complexes. However, the porphyrins themselves no longer have the domed shape seen in ClFeIII(OEP), and the N4 coordination environment possesses a slight rectangular distortion. These high-spin, mono-meso-substituted iron(III) complexes display 1H NMR spectra in chloroform-d solution which indicate that the conformational changes seen in the solid-state structures are altered by normal mol. motion to produce spectra consistent with Cs mol. symmetry. In pyridine solution the high-spin six-coordinate complexes {(py)ClFeIII(meso-R-OEP)} form. In methanol solution in the presence of excess potassium cyanide, the low-spin six-coordinate complexes K[(NC)2FeIII(meso-R-OEP)] form. The 1H NMR spectra of these show that electron-donating substituents produce an upfield relocation of the meso-proton chemical shifts. This relocation is interpreted in terms of increased contribution from the less common (dxz,dyz)4(dxy)1 ground electronic state as the meso substituent becomes more electron donating.

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L8 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2002:44832 CAPLUS
DOCUMENT NUMBER: 136:285734

TITLE: Electrochemistry and spectroscopy of sulfate and thiosulfate complexes of iron porphyrins

AUTHOR(S): Crawford, Philip W.; Ryan, Michael D.
CORPORATE SOURCE: Department of Chemistry, Marquette University, Milwaukee, WI, 53201-1881, USA

SOURCE: Inorganica Chimica Acta (2002), 328, 13-22
CODEN: ICHAA3; ISSN: 0020-1693
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English

ABSTRACT:
The electrochem. and spectroscopic properties of the complex formed by the addition of thiosulfate to ferric porphyrins were examined The NMR spectrum of the thiosulfate-ferric porphyrin complex was consistent with a high-spin ferric complex, while the EPR spectrum at liquid nitrogen temps. indicated that the complex under these conditions was low-spin. Such behavior has been previously observed for other ferric porphyrin complexes. The visible spectra were characterized by a shift in the Soret band to higher energies, with smaller changes in the longer wavelength region. The complex was reasonably stable in DMF, but slowly reduced over several hours to FeII(TPP) and S4O6 2-. The voltammetric behavior of the thiosulfate complex in DMF consists of two waves, the first of which was irreversible. The ferric/ferrous reduction in the presence of thiosulfate was shifted neg. about 400 mV, compared to the Fe(TPP)(Cl) reduction The visible, NMR and EPR spectra were most consistent with a Fe-S bonded ferric porphyrin-thiosulfate complex, Fe(P)(S-SO3)-. The kinetics of the reduction of ferric porphyrin by thiosulfate in DMSO indicated an autocatalytic mechanism, where the first step is the formation of the catalyst. The identity of the catalyst could not be determined because it must be present at low concns., but it is formed from the reaction of the ferric complex with thiosulfate. Coordination of thiosulfate to the porphyrin was not necessary for the reduction to occur, and the reduction of Fe(TPP)(Cl) by thiosulfate was accelerated by the addition
of sulfate. Under these conditions, sulfate had replaced thiosulfate as the axial ligand for the ferric porphyrin. In the presence of sulfate, the reduction occurred in a single kinetic pseudo-first order step.

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